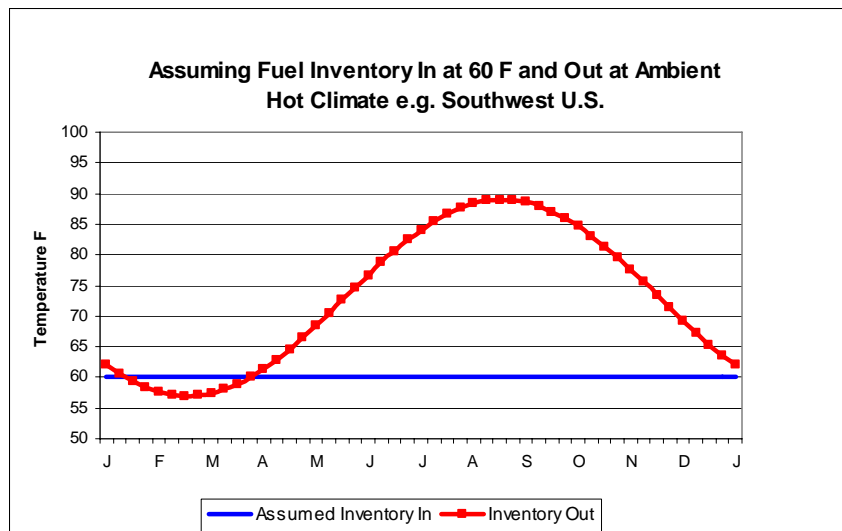


Understanding the Inventory Flow at the Retail Station
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What does it really mean to buy net at 60 F and sell gross at ambient temperature?

Here we assume that the retailer received inventory at 60F and sold it at ambient temperature. Whichever line is colder represents the higher value so, under this assumption, the retailer has a big advantage over the consumer. Retailer can buy at 60 F in August and sell at close to 90 F. That is almost 2% gain on each load of gasoline purchased. For a 10,000 net purchase that is about 200 expanded gallons extra he gets to sell and perhaps \$600 of unearned profit per load. This is how the media came up with the massive losses to consumers.



This is not how it really happens though! Consider the Bill of Lading (BOL) that accompanied the tanker load of gasoline from the terminal on or about August 15th in the graphic above. It might show the following information.

Net gal	API gravity	Temp F	Gross gal
10,000	58	94	10,236

This tells us that the 10,236 gallons at 94 F is exactly equivalent to the 10,000 at 60 F. They are the same thing expressed in different ways. Which of these two options is actually used by the retailer? By used, I mean which value gets entered into the ledger of inventory. Everyone looking at the system has ASSUMED it was the 10,000 gallons net. I strongly suggest that this assumption be verified before the California Energy Commission studies the questions it has proposed for its study.

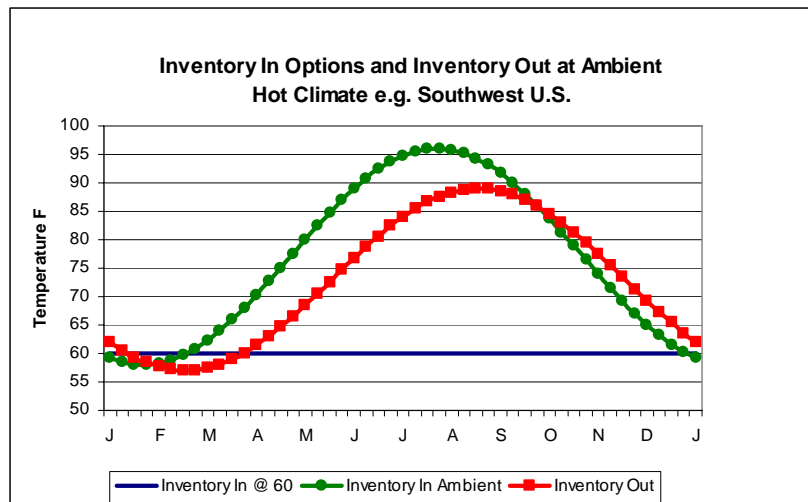
From the BOL it should be clear that the retailer has a choice! **IF** the retailer takes in the 10,000 gal figure in inventory then he is truly receiving his inventory at 60 F. However, if he takes in the 10,236 gallon figure, he is actually receiving his inventory at 94 F (same as at the rack). Tim Columbus of the National Association of Convenience Stores testified to that effect to Congress and it is what I have found in my state. This option would dramatically change the overall picture and would significantly change the baseline of the study.

I strongly suggest you consult with the underground tank experts at the California EPA and ask to join them in conducting an audit of a retailer. They should be able to explain how the retailers in California manage inventory and verify that retailers use the gross value in their accountings. The retailer can use the net value but the inventory reconciliation process is far more difficult. I also suggest visiting retail stations across your state to look at inventory records.

Under this assumption, the relative position of the retailer and consumer are now relative to two curves that both move during the season. The party with the lower temperature is still the one that is ahead.

The temperature data collected by the NCWM thus far shows that the retailer has been gaining a few degrees since the end of August. This confirms what is predicted in these curves.

The temperature differential has been about 2-5 F higher at the nozzle than at the rack where the retailer made his purchase.



However, the seasons change, and as we get into March, the relationship will change dramatically. The retailer now will be the one that takes the loss. This is because the rise in underground tank temperature lags behind the change in temperature in the above ground tank at the terminal. In addition, the temperature differentials will not be just 2-5 F but will be larger, reaching about 10-12 F around June 1. As the NCWM continues data collection to complete the year cycle, I predict the rest of the graph will emerge just as depicted above.

California officials did not collect terminal temperature data, but it is not too late. They began collecting retail temperatures in late March. Terminals have to maintain records for one year under FTC rules regarding Fuel ratings. If you poll some terminals in representative areas around the state and they may be able to provide some temperature data to complete this picture.

The critical question in your cost benefit analysis is now much different than that in your base proposal. The losses and gains have now become much smaller, i.e. only the difference between these two curves. They also have flipped to favor the consumer. Please feel free to use my analogy of the asset protection improvement, because that is all you are left with. The decision now is not of millions lost to consumers, but rather if it pays for retailers to take steps to reduce their losses.

The vast savings that were promised to the consumer in the media have suddenly disappeared because they used the wrong assumption with regard to the meaning of “buy net at 60F.”